

CLAIMS:

1. A film layer made from a polymer composition, wherein the composition comprises (A) from 10 percent (by weight of the total composition) to 95 percent (by weight of the total composition) of at least one homogeneously branched ethylene/alpha-olefin interpolymer having:

(i) a density from 0.86 grams/cubic centimeter (g/cm^3) to 0.92 g/cm^3 ,
(ii) a molecular weight distribution (M_w/M_n) from 1.8 to 2.8,
(iii) a melt index (I_2) from 0.2 grams/10 minutes (g/10min) to 200 g/10min ,

(iv) substantially no high density fraction; and

(B) from 5 percent (by weight of the total composition) to 90 percent (by weight of the total composition) of at least one heterogeneously branched ethylene polymer having a density from 0.88 g/cm^3 to 0.945 g/cm^3 ;

wherein the polymer composition has a melt index lower than the melt index of component (A).

2. A film layer made from a polymer composition, wherein the composition comprises (C) from 10 percent (by weight of the total composition) to 95 percent (by weight of the total composition) of at least one homogeneously branched ethylene/alpha-olefin interpolymer having:

(i) a density from 0.86 grams/cubic centimeter (g/cm^3) to 0.92 g/cm^3 ,
(ii) a molecular weight distribution (M_w/M_n) from 1.8 to 2.8,
(iii) a melt index (I_2) from 0.2 grams/10 minutes (g/10min) to 200 g/10min ,

(iv) substantially no high density fraction; and

(D) from 5 percent (by weight of the total composition) to 90 percent (by weight of the total composition) of at least one homogeneously branched ethylene polymer having a density higher than component (A) and wherein the density is from 0.88 g/cm^3 to 0.945 g/cm^3 ;

wherein the polymer composition has a melt index lower than the melt index of the component (A).

3. The film layer of claim 1 or 2 having a heat seal initiation temperature of no greater than 105 °C.

4. The film layer of claim 1 or 2, wherein the composition has a melt index from 0.5 grams/10 minutes to 30 grams/10 minutes.

5. A film layer made from a polymer composition, wherein the composition has an ATREF-DV characterized by having at least 1 low temperature peak between 30°C and 90°C, wherein the lowest temperature peak has an Mv which is at least 6 percent lower than the average Mv of the composition.

6. The film layer of claim 1 or 2 wherein the homogeneously branched ethylene/alpha olefin polymer of component (A) is an interpolymer of ethylene with at least one C₃-C₂₀ alpha-olefin.

7. The film layer of claim 1 wherein the heterogeneously branched ethylene polymer is a copolymer of ethylene and a C₃-C₂₀ alpha-olefin.

8. The film layer of claim 1 wherein the heterogeneously branched ethylene polymer is a copolymer of ethylene and 1-octene.

9. The film layer of claim 5 wherein the polymer composition includes a homogeneously branched ethylene/alpha-olefin copolymer which is a copolymer of ethylene and 1-octene.

10. In a composition comprising at least one homogeneously branched ethylene/alpha-olefin interpolymer and at least one heterogeneously branched ethylene/alpha-olefin interpolymer, the improvement comprising the composition having an ATREF-DV characterized by having at least 1 low temperature peak between 30°C and 90°C, wherein the lowest temperature peak has an Mv lower than the average Mv of the composition.

11. A film layer made from a polymer composition, wherein the composition comprises (A) from 10 percent (by weight of the total composition) to 95 percent (by weight of the total composition) of at least one ethylene/alpha-olefin interpolymer having:

- (i) a density from 0.86 grams/cubic centimeter (g/cm³) to 0.92 g/cm³,
- (ii) a molecular weight distribution (Mw/Mn) from 1.8 to 2.8,
- (iii) a melt index (I₂) from 0.2 grams/10 minutes (g/10 min) to 200 g/10 min,
- (iv) substantially no high density fraction; and

(B) from 5 percent (by weight of the total composition) to 90 percent (by weight of the total composition) of at least one ethylene polymer having a density from 0.88 g/cm³ to 0.945 g/cm³,

wherein the composition has a melt index lower than the melt index of (A).

- 5 12. In a composition comprising at least one homogeneously branched ethylene/alpha-olefin interpolpolymer and at least one other ethylene polymer, the improvement comprising the composition having an ATREF-DV characterized by having at least 1 low temperature peak between 30C and 90C, wherein the low temperature peak has an Mv lower than the average Mv of the composition.
- 10 13. The film layer of claim 1 wherein (B) has a density higher than the density of the composition.
14. The improvement of claim 10 wherein the homogeneously branched substantially linear ethylene/alpha-olefin interpolpolymer is an interpolpolymer of ethylene with at least one C₃-C₂₀ alpha-olefin.
- 15 15. The improvement of claim 10 wherein the homogeneously branched substantially linear ethylene/alpha-olefin interpolpolymer is a copolymer of ethylene and a C₃-C₂₀ alpha-olefin.
16. The improvement of claim 10 wherein the homogeneously branched substantially linear ethylene/alpha-olefin interpolpolymer is a copolymer of ethylene and 1-octene.
- 20 17. The improvement of claim 10 wherein the heterogeneously branched ethylene polymer is a copolymer of ethylene and a C₃-C₂₀ alpha-olefin.
18. The improvement of claim 10 wherein the heterogeneously branched ethylene polymer is a copolymer of ethylene and 1-octene.
19. The film of claims 1, 2 or 4, or the composition of claims 10 or 12, wherein the
25 composition comprises more than 40 percent (by weight of the total composition) of Component (A)
20. A film layer made from a polymer composition, wherein the composition comprises (A) from 10 percent (by weight of the total composition) to 95 percent (by weight of the total composition) of at least one homogeneously branched ethylene/alpha-olefin interpolpolymer having:
30 (i) a density from 0.86 grams/cubic centimeter (g/cm³) to 0.92 g/cm³,
(ii) a molecular weight distribution (Mw /Mn) from 1.8 to 2.8,

- (iii) a melt index (I_2) from 0.2 grams/10 minutes (g/10min) to 200 g/10 min,
- (iv) substantially no high density fraction; and

(B) from 5 percent (by weight of the total composition) to 90 percent (by weight of the total composition) of at least one homogeneously branched ethylene polymer having a density from 0.88 g/cm³ to 0.945 g/cm³; and a molecular weight distribution (M_w/M_n) from 1.8 to 2.8, wherein the polymer composition as a whole has a melt index lower than the melt index of component (A).

21. A film layer made from a polymer composition, wherein the composition has a CRYSTAF-LS characterized by having a lowest temperature peak between 30°C and 90°C, wherein the lowest temperature peak has an M_w which is at least 6 percent lower than the average M_w of the composition.

22. In a composition comprising at least one homogeneously branched ethylene/alpha-olefin interpolmer and at least one heterogeneously branched ethylene/alpha-olefin interpolmer, the improvement comprising the composition having a CRYSTAF-LS characterized by having at least 1 low temperature peak between 30°C and 90°C, wherein the lowest temperature peak has an M_w lower than the average M_w of the composition.

23. In a composition comprising at least one homogeneously branched ethylene/alpha-olefin interpolmer and at least one other ethylene polymer, the improvement comprising the composition having a CRYSTAF-LS characterized by having at least 1 low temperature peak between 30°C and 90°C, wherein the low temperature peak has an M_w lower than the average M_w of the composition.